



AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

COMMITTEE CORRESPONDENCE

October 19, 2007

Address Reply to

Win Stebbins, Chairman
Technical Committee on Environmental Design
Michigan DOT Design Division
P.O. Box 30050 Lansing, Michigan 48909

The Technical Committee on Environmental Design (TCED) semi-annual fall meeting met at Wilmington Vermont October 1-4, 2007, hosted by the Vermont Agency of Transportation (VTrans). Eleven of 17 members attended in person, plus two members participated by speakerphone in the business portions of Tuesday and Wednesday mornings' meetings. The agenda and attendance are attached, including VTrans presenters.

Monday evening's presentation of the public outreach and educational components of federal compliance with archaeology of Vermont, and Bennington in particular, illustrated differences in philosophy between various State Historic Preservation Officers: involve and educate the public in the value of artifacts, or keep findings and discussions secret to preserve the sites. Presenter Ellen Cowie said the educational component benefits usually far outweigh the slight negative possibility that someone will enter and remove artifacts or disturb the excavation site. Public outreach is a standard mitigation measure specified in VTrans' Section 106 Programmatic Agreement for projects that involve Phase 3 recovery. Public response has been generally positive.

Tuesday morning we were welcomed by VTrans and learned about them: 560 of their 1200 employees are in Districts; \$338 million budget in 2006; they maintain 320 miles of Interstate plus 2,700 miles of other State routes including 2,700 bridges over 20 feet; they have just begun a statewide survey of their more than 40,000 small culverts; their \$160 million annual construction budget allows about 100 major projects; and despite all the improvements over the past 3 years, the numbers of deficient interstate and state bridges continues to increase.

Vermont's Act 250, passed in 1970, protects against substandard or shortsighted development and the burdens such development place on water, sewer, utility, police and fire services, and on schools and roads. Proposals for all commercial projects of 10 or more acres, developments in elevations above 2,500 feet, developments involving 10 or more lots in a five-year period, developments with 10 or more units, roads longer than 800 feet serving subdivisions, projects of less than 10 acres in towns without zoning and subdivision bylaws, or other special cases are reviewed by one of nine

District Environmental Commissions, each with jurisdiction in a particular region. Many VTrans projects require compliance with this law. The act has no provisions for charging Development Fees for roads, fire, police, or schools.

In TCED business Tuesday morning, Keith Robinson, Caltrans and Chair of the NCHRP rewrite of the Landscape Guide, said the consultant has begun a restart based on Panel and TCED review comments on the first submitted outline draft. Keith expects to receive a revised outline draft next week and will convert it to Review Mode (with line numbers each page) before sending it to all TCED members for 2-3 week review turnaround. To assist the panel in considering input, reviewers may be asked to submit their detailed comments in an Excel spreadsheet. TCED members are requested/expected to return comments within the stated time period, hopefully having requested and including comments from others in their DOT.

During VTrans' four Tuesday morning presentations, we learned about VTrans' experience with Wildlife Crossings, the main differences between Reptiles and Amphibians and their need for habitat connectivity and the great lengths that some protection groups go to assure the continuation of the species. We learned about the growing emphasis in New England being placed on Aquatic Organism Passage and the engineering challenges to provide this connectivity through natural bottom structures. Vermont's river/road crossings are very diverse and finding one solution that fits all situations is not feasible. VTrans will continue to selectively design crossings using the rapidly evolving science and following-up with post construction monitoring to better assess what techniques work best. Presenters later Tuesday said that culverts that act as barriers for aquatic organism passage and thus isolates gene pools results in local extinctions of the affected species.

VTrans' Roadway Program Manager presented VT's Design Standards, the Project Development Process and Vermont's Road to Affordability. VTrans has a new Design Standard (60 pages, on the web) that allows Design Speeds to be as much as 10 mph lower than legal (posted) speed, and may be used without a formal Design Exception provided appropriate warning (advisory speed) signs are provided. Clear Zones as narrow as 10' can be used without a Design Exception. VTrans presented their project development process, which does not write the Purpose and Need for any project until a Local Input meeting has been held on the possible project. This new protocol gets mixed reaction from towns; some appreciate the opportunity to provide early local input, while others are less comfortable in offering design input. VTrans' new 'Road to Affordability' is a response to the needs of Vermont's aging infrastructure. A greater emphasis on maintaining existing roads and bridges is planned for the foreseeable future. Other cost saving strategies include reducing VTrans' current 100% funding of amenities.

The last Vermont speaker was from Maintenance and spoke of the need to assure that designs can/will be maintained for many years after construction. One of the biggest challenges is determining the appropriate balance between the expenditure of dollars and the protection afforded to resources.

Tuesday's field trip included two presentations on the 2-lane Western Segment of the Bennington Bypass, constructed by VTrans; interestingly 1.5 miles in New York were built to NYSDOT standards. A third presentation detailed Wildlife Crossing studies underway in New England, Western US, plus Canada and Europe. After watching a dynamite explosion of a rock ledge as part of Contract 5 project excavation, we visited three wildlife crossings (one very long 6' vertical elliptical culvert and two wider stream bridges) that have been scientifically instrumented with track pads and remote cameras. The structures are under observation for 3 years to determine their effectiveness. The lead researcher gave an excellent presentation at each site on the research, initial findings, and initial suggestions for improving wildlife crossings of highways elsewhere nationally. We then walked the future site of a Vermont Welcome Center to be built inside a system interchange; they told us of on-site modifications being made to contain stormwater runoff during the grading project, until final grading is done in conjunction with paving and constructing the building in a future year. In another location on this construction project, a designed and let 800' curved girder bridge over a small creek and hiking trail is under review by VTrans.

In TCED business Wednesday morning, voting results were announced. Tim Stark, Wyoming DOT Environmental has been elected Chair, and Dan Stewart, PennDOT Design was elected Vice Chair. The current retiring Chair will notify the SCOD Chair and AASHTO of TCED's new leadership.

A summary of the AASHTO report was given from Jim's faxed report (the entire report has been E-Mailed to all members). CSS still does not have a home in AASHTO. A short report was given of the SCOD June 2007 meeting, and the invitation was made for TCED presentations to SCOD 2008 if we are requested (no immediate topics offered).

Barbara Bauer, FHWA, was not able to attend, so there was no new report from FHWA; her E-Mail updates stand.

A long discussion occurred on potential mutual topics between TCED and Hydraulics and Hydrology, with whom we will meet for 2-4 hours next April as both our meetings are being held at the same facility and dates in Baltimore. TCED will share our past two agendas, and ask for theirs. Possible mutual agenda topics to suggest include Natural Stream Design, Multi-Use Culvert and Bridge Openings (water, animals, humans), undersized culverts/bridges (high water velocity) caused mussel relocation and scour, sediment transport in streams, natural streambank mitigation, and fish passage/habitat at various flow levels; additional topics will be welcomed. We would like discussion time to express broad concerns of TCED members pertaining to hydraulic passage, and to learn about the new Hydraulic Manual (to be) voted by SCOD this fall 2007.

Vermont's Water Quality Standards (WQS) are being revised with the elimination of the Limited Duration Activity (LDA) language. EPA has expressed concern that the current LDA language violates the Clean Water Act (CWA). Vermont anticipates legal challenges by environmental groups whenever in-stream work takes place under the new WQS, and asked TCED members how they comply with this perceived violation of

CWA whenever in-stream activities (installation/removal of sheet piling or other permanent erosion protection) are performed? TCED states present said they are allowed limited turbidity when installing the permanent stream protection items within or along the waterway.

Discussion began on the new term Green Highway, and what it means in recent literature, to us individually, and to the public. PennDOT has used crushed glass as pipe backfill and crumb rubber as embankment; results unknown. Michigan uses recycled milk jugs for the top boards at picnic tables, VTrans is developing new protocols for mowing and riparian area maintenance. FHWA will make a presentation on Green Highways at our Baltimore meeting. There might be a new manual on Green Highways available or coming from EPA/USFWS/FHWA.

We discussed possible Research Topics that TCED might propose. Any topics submitted should be worded as broadly as possible, as funding competition gets stiff farther from the traveled portion of the roadway. FHWA/AASHTO has been asked to give a presentation to TCED next April on Research Topics and Grant Writing.

Greg Akers of West Virginia DOT gave a presentation on their DOT's cooperation with DNR to develop and share an Environmental Data Sources. It has greatly reduced DOT permit submittals to DNR by indicating where concerned species have been tested and found to not be present; the work to share knowledge of both agencies has benefited both agencies in staff and time.

Greg Vitley of Idaho DOT gave a presentation on their new State Tax Anticipated Revenue (STAR) program, which uses State Tax Revenue to repay developers up to 60% of construction costs for public transportation improvements constructed by new developments.

Shane Marshall of Utah DOT volunteered to collect PowerPoint presentations at this meeting and supporting photographs and post them somewhere (TCED Portal?) for Members' reuse and possible access by anyone interested in other DOTs. TCED members thank you Shane. VTrans has sent a CD with all Powerpoints to Shane.

VTrans' Historic Preservation Officer presented on the link between VT's authority under their Section 106 Programmatic Agreement and Context Sensitive Solutions.

The main topic of Wednesday's field trip was the hydro-electric generation station at Harriman Reservoir, used to generate and sell peak electricity into the state Grid.

Future TCED meetings are April 7-10, 2008 in Baltimore Maryland hosted by the Maryland DOT, and Fall 2008 hosted by the Idaho Transportation Department. TCED members should be thinking of projects they would show other members if they volunteered to host the group in 2009.

As retiring Chair, I give sincere thanks to those many excellent, knowledgeable, and personable members from other DOTs I have served with on TCED for the past 11 years, and I wish continued success to the current and future members of TCED under the able leadership of Tim, Dan, and others to follow. Your attendance at our meetings, participation in phone calls and E-Mails between meetings, and eagerness to host TCED meetings to show others your success in Environmental Design is an inspiration to each of us to sell our DOTs on sensitive successful topics that other DOTs have built and are maintaining. It has been my absolute pleasure to be a member of the AASHTO Technical Committee on Environmental Design. I wish you well in this group's future endeavors.

Win Stebbins
Retiring Chair, TCED
Michigan DOT Design Division

cc: Dave Henderson, Chair TCHH

Attachments: Agenda for October 1-4, 2000 and Attendance
TCED Members' address information
TCED Members' work areas and 2 Vacancies

TCED Members Attending October 1-4, 2007 in Vermont:

Greg Akers	West Virginia
Phillip Bell	New York
Karen Coffman	Maryland
Chris Dacus	Hawaii
Shane Marshall	Utah
John Narowski	Vermont
Keith Robinson	California
Tim Stark	Wyoming
Win Stebbins	Michigan
Dan Stewart	Pennsylvania
Greg Vitley	Idaho

TCED Members using Phone Conferencing

Louis Feagans	Indiana
Susan Knudson	Georgia

Guests Attending and/or Presenting:

Dennis Benjamin	VTrans	Environmental Specialist Supervisor
Duncan Wilkie	VTrans	Archaeology Officer
Karen Spooner	VTrans	Environmental Administrative Assistant
Ellen Cowie	Univ Maine Farmington	Archaeology of Bennington
Jim Andrews	Middlebury College	Herpetologist
Mike Tuttle	VTrans	Hydraulics Engineer
Kevin Marshia	VTrans	Roadway Program Manager
Scott Rogers	VTrans	Operations Assistant Director
James Harris	VTrans	Project Manager
Scott Jackson	UMass Amherst	Biology Professor
Dale Gozolakowski	Clough Harbour Engineering	Bennington Bypass Project Manager
Scott Newman	VTrans	Historic Preservation Officer

TCED Members not able to attend:

Barbara Bauer	FHWA Washington DC
Jim McDonnell	AASHTO Washington DC
Keith Purvis	Mississippi
Jeff Caster	Florida
Chris Dacus	Hawaii
Tim Hill	Ohio

TCED Members and Vacancies by AASHTO Region:

Region 1:	MD, NY, PA, VT	
Region 2:	FL, GA, WV	1 vacancy
Region 3:	IN, MI, OH	1 vacancy
Region 4:	CA, HA, ID, UT, WY	
	FHWA and AASHTO	

**AASHTO Technical Committee on Environmental Design
Meetings Since 1990**

		Michigan	September 10-11, 1990
California	April 29-30, 1991	Missouri	October 28-29, 1991
Oregon	July 16-17, 1992		
South Carolina	March 1-2, 1993	Delaware	October 4-5, 1993
Minnesota	June 23-24, 1994		
Wyoming	March 30-31, 1995	West Virginia	October 16-17, 1995
Pennsylvania	May 6-7, 1996	Missouri	October 15-16, 1996
Utah	May 13-14, 1997	Michigan	October 20-22, 1997
Delaware	April 26-28, 1998	Vermont	October 4-6, 1998
California	March 10-12, 1999	Wyoming	October 3-5, 1999
(Arizona	Spring, Not Held)	South Carolina	September 24-26, 2000
Missouri	April 22-24, 2001	Pennsylvania	Sept. 30 – Oct. 2, 2001
Utah	April 3-5, 2002	Michigan	October 2-4, 2002
North Carolina	April 9-11, 2003	New York	October 8-10, 2003
Minnesota	May 12-14, 2004	West Virginia	October 20-22, 2004
Mississippi	May 2-5, 2005	New Mexico	October 17-20, 2005
Florida	April 17-20, 2006	Wyoming	October 2-5, 2006
Michigan	May 7-11, 2007	Vermont	October 1-4, 2007
Maryland	April 7-10, 2008	Idaho	Fall 2008